

Oklahoma Corporation Commission
Oil & Gas Conservation Division
Post Office Box 52000
Oklahoma City, Oklahoma 73152-2000
Rule 165: 10-3-25

Form 1002A

API No.: 35051245280000

Completion Report

Spud Date: December 14, 2018

OTC Prod. Unit No.: 051-225522-0-0000

Drilling Finished Date: February 02, 2019

1st Prod Date: April 15, 2019

Completion Date: April 08, 2019

Drill Type: HORIZONTAL HOLE

Min Gas Allowable: Yes

Well Name: JUDAH 0807 17-20 1WH

Purchaser/Measurer: IRON HORSE MIDSTREAM,
LLC

First Sales Date: 04/22/2019

Location: GRADY 17 8N 7W
SE NW SE NE
1795 FNL 960 FEL of 1/4 SEC
Latitude: 35.169804894 Longitude: -97.955352377
Derrick Elevation: 0 Ground Elevation: 1161

Operator: CAMINO NATURAL RESOURCES LLC 24097

1401 17TH ST STE 1000
DENVER, CO 80202-1247

Completion Type		Location Exception		Increased Density	
X	Single Zone	Order No		Order No	
	Multiple Zone	700985		There are no Increased Density records to display.	
	Commingled				

Casing and Cement							
Type	Size	Weight	Grade	Feet	PSI	SAX	Top of CMT
SURFACE	13 3/8	54.5	J-55	1516		1179	SURFACE
INTERMEDIATE	9 5/8	36	J-55	12316		1215	5930
PRODUCTION	5 1/2	29	P-110	22389		4587	SURFACE

Liner								
Type	Size	Weight	Grade	Length	PSI	SAX	Top Depth	Bottom Depth
There are no Liner records to display.								

Total Depth: 22397

Packer		Plug	
Depth	Brand & Type	Depth	Plug Type
There are no Packer records to display.		There are no Plug records to display.	

Initial Test Data

Test Date	Formation	Oil BBL/Day	Oil-Gravity (API)	Gas MCF/Day	Gas-Oil Ratio Cu FT/BBL	Water BBL/Day	Pumpin or Flowing	Initial Shut-In Pressure	Choke Size	Flow Tubing Pressure
May 05, 2019	WOODFORD	85	53	7385	86882	5615	FLOWING	3795	32	

Completion and Test Data by Producing Formation	
Formation Name: WOODFORD	Code: 319WDFD
Class: GAS	

Spacing Orders	
Order No	Unit Size
623954	640
632187	640
700984	MULTIUNIT

Perforated Intervals	
From	To
14141	22287

Acid Volumes	
15,037 GALS ACID	

Fracture Treatments	
535,139 BBLS FLUID & 22,402,888 LBS PROPPANT	

Formation	Top
WOODFORD	14013

Were open hole logs run? Yes

Date last log run: January 07, 2019

Were unusual drilling circumstances encountered? No

Explanation:

Other Remarks
There are no Other Remarks.

Lateral Holes
Sec: 20 TWP: 8N RGE: 7W County: GRADY SW SE SE SE 57 FSL 400 FEL of 1/4 SEC Depth of Deviation: 13416 Radius of Turn: 1022 Direction: 180 Total Length: 8256 Measured Total Depth: 22397 True Vertical Depth: 14305 End Pt. Location From Release, Unit or Property Line: 57

FOR COMMISSION USE ONLY	
Status: Accepted	1142723

TEST: ☒ INITIAL
☐ ANNUAL
☐ RETEST

OKLAHOMA CORPORATION COMMISSION
Oil & Gas Conservation Division
Post Office Box 52000
Oklahoma City, Oklahoma 73152-2000

RECEIVED

Form 1016
Rev. 2018

JUL 29 2019

BACK PRESSURE TEST FOR NATURAL GAS WELLS

OAC 165:10-17-6

Oklahoma Corporation
Commission

DATE OF TEST:

6/26/2019

DATE OF 1ST SALES:

4/22/2019

Operator				Camino Natural Resources, LLC				Operator #		24097	
Address				1401 17th Street, Suite 1000				City		Denver	
E-mail				mgentile@caminoresources.com				Ph		720-405-2729	
Gas Volumes to be Reported to OCC by:				CAMINO				Gas Volume Reporter #		24097	
Producing Zone				Woodford 319 W DFD				Well Name/#		Judah 0807 17-20 1WH	
Surface Location				SE 1/4 NW 1/4 SE 1/4 NE 1/4				API #		051-24528	
Zone Location (if different)				1/4 1/4 1/4 1/4				OTC Lease #		051-225522	
Field				Merge				(OCC use) Allowable #		(see below)	
								County		Grady	
								Spacing Size		1280	

COMPLETION: ☒ Single ☐ Multiple Zone ☐ Commingled ☐ Recompletion Date of Completion

Total Depth		22397		Plug Back Depth				Packer Set Depth		1161	
Csg Size		5.5		WT		26		Depth Set		22385	
Tbg Size				WT				Perfs.		14141 - 22287	
Prod. Thru		Casing		Res. Temp. F		229 @ 18215		Mean Grd. Temp. F		60	
L 18215		H 18215		G _g		.7217		%CO ₂		.729	
				%N ₂		.449		H ₂ S(ppm)			
				Prover				Meter Run		X	
				Taps				Flange			

SHUT-IN DATA		FLOW DATA						TUBING DATA		CASING DATA		BHP DATA		FLOW (HRS)
PRESS	(HRS)	LINE SIZE	X	ORIFICE SIZE	PRESS	(INCHES)	TEMP	PRESS	TEMP	PRESS	TEMP	PRESS	TEMP	
					(PSIG)	(ROOTS)	(F)	(PSIG)	(F)	(PSIG)	(F)	(PSIG)	(F)	
2708	24	4.026		2.75	128	289	90			1697	85			24

RATE OF FLOW CALCULATIONS

COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	PRESSURE P _m	FLOW TEMP. FACTOR F _t	GRAVITY FACTOR F _g	SUPER COMPRESS FACTOR F _{pv}	RATE OF FLOW (Q) _{MCFD}
42.15	202.8636	142.4	.9723	1.1771	1.0138	9922

P _r	TEMP. R	T _r	Z
.2135	549.7	1.3942	.9730

Gas/Liquid Hydrocarbon Ratio		61.24		MCF/BBL	
API Gravity of Liquid Hydrocarbons		60		Deg.	
Specific Gravity Separator Gas		.7217		Specific Gravity Flowing Fluid	
Critical Pressure		666.9 PSIA		Critical Pressure	
Critical Temperature		394.26 R		Critical Temperature	
				665.07 PSIA	
				408.15 R	

P_c 2722.4 (PSIA) P_c² 7411.46

P _w	P _w ²	P _c ² - P _w ²
1711.4	2928.89	4482.57

Multiflow: Sec. 17: 36.9629% 225522 I
Sec. 20: 63.0371% 225522A I

$$[1] \frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.6534}{(Not to exceed 5.263)}$$

$$[2] \frac{P_c^2}{P_c^2 - P_w^2} = 1.5333 \quad WHAOF=Q \quad \frac{P_c^2}{P_c^2 - P_w^2} = \frac{16212}{15407}$$

Calculated wellhead open flow	15212	MCFD @ 14.65	Angle of Slope	Slope, n	.850
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Remarks Oil Produced 162 BBLS Water Produced 756 BBLS

Approved by Commission:	Conducted by:	Calculated by:	Checked by:
PR	Brandon Plumlee	Thurmond McGlothlin	

WITNESSED - OCC FIELD STAFF: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	NAME: Jam (over)	DATE: 6-29-19
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IF THE ALLOWABLE FOR THIS WELL HAS BEEN ADJUSTED BY COMMISSION ORDER, PLEASE GIVE THE ORDER NUMBER(S) IN ONE OR MORE OF THE CATEGORIES BELOW:

INCREASED DENSITY _____ LOCATION EXCEPTION * _____

COMMINGLING _____ MULTIPLE ZONE _____

SEPARATE OR SPECIAL ALLOWABLE * _____

OTHER PENALTY ORDER(S) * 700984 (multifault)

* FOR THESE ORDER TYPES, PLEASE DESCRIBE ALLOWABLES AND/OR PENALTIES:

I declare that I have knowledge of the contents of this report and am authorized by my organization to make this report, which was prepared by me or under my supervision and direction, with the data and facts stated herein to be true, correct and complete to the best of my knowledge and belief.

SIGNATURE	<u>Day Fawcett</u>	TITLE	<u>Manager</u>
COMPANY	<u>Thurmond McGlothlin</u>	DATE	<u>06/26/19</u>
		PHONE NO.	<u>580-256-9849</u>

- Pc SHUT-IN PRESSURE, PSIA (LENGTH OF SHUT-IN MINIMUM OF 24 HOURS).
- Pw STATIC COLUMN WELLHEAD PRESSURE CORRESPONDING TO THE FLOWING WELLHEAD PRESSURE, PSIA (TO BE RECORDED AT END OF EACH FLOW RATE.) THE VALUE OF Pw SHOULD NOT EXCEED 90% OF Pc.
- Gg SPECIFIC GRAVITY OF SEPARATOR GAS (AIR = 1.000).
- L LENGTH OF THE FLOW STRING FROM THE MIDDLE OF THE PRODUCING FORMATION TO THE PRESSURE POINT AT WELLHEAD, FEET.
- H VERTICAL DEPTH CORRESPONDING TO L, FEET.
- Q 24 HOUR RATE OF FLOW, MCF/D.
- d INSIDE DIAMETER, INCHES.
- R DEGREES, RANKINE (DEGREES FAHRENHEIT ABSOLUTE).
- Pr REDUCED PRESSURE, DIMENSIONLESS.
- Tr REDUCED TEMPERATURE, DIMENSIONLESS.
- Z COMPRESSIBILITY FACTOR, DIMENSIONLESS.